REMARKS

Claims 46-58, 60, 61 and 63-89 are pending. Claims 59 and 62 are cancelled. Claims 68 – 89 are withdrawn as being drawn to non-elected subject matter. Claims 46-58, 60, 61 and 63 - 67 have been considered.

Claim 46 has been amended to recite serine protease and metalloproteinase. Support for this amendment is found on page 7, lines 26-32 and page 8, lines 33-36. Claim 47 is amended to recite the specific sequences to be mutated for reducing susceptibility to a serine protease (a) or a metalloproteinase (b). Support for this amendment is found on page 3, lines 6-12, page 7, line 25 and page 8, line 33.

No new matter is added by this amendment.

Claim Objections

Claims 50, 51, and 59 have been amended to write out the phrase "amino acids" in the place of "aa". This amendment does not affect the scope of the claims, but merely provides the full-length term for the abbreviation previously included in the claims.

Reconsideration and withdrawal of this rejection is requested.

Claim Rejections – 35 USC §112

The examiner admits that the specification is enabling for a method for reducing the susceptibility of tropoelastin to thrombin, kallikrein, trypsin, plasmin, gelatinase B, or serum by mutating the sequences described in the specification, including Table 1.

> *Claims 46-49, 52-53, 56, 58, 65 and 67 are rejected under 35 USC 112, first paragraph, as not being enabling for a method for reducing or eliminating the susceptibility of a tropoelastin to proteolysis by any protease comprising mutating any sub-sequence in the tropoelastin so that the susceptibility of the tropoelastin to proteolysis is reduced or eliminated.*

Applicants submit that the specification provides at least 33 exemplary sequences (SEQ ID Nos: 8 to 12 and 17 to 44) which may be mutated to reduce the susceptibility of tropoelastin to proteolysis by serine protease. The specification provides at least 27 sequences (SEQ ID NO: 13 and 45 to 70) which may be mutated to reduce the susceptibility of tropoelastin to proteolysis by metalloproteinase. Table 1 provides N-terminal sequences of peptide from proteolytic

cleavage of tropoelastin with thrombin, kallikrein, trypsin, plasmin, gelatinase B and serum indicating sites that may be targeted to reduce susceptibility to proteolysis by these enzymes. These sites are also indicated in Figure 1.

Accordingly, in light of what is disclosed in the specification, applicants submit that there would be no undue experimentation required by a person skilled in the art in order to carry out the full scope of the method of the invention.

Reconsideration and withdrawal of this rejection is requested.

Claims 46-67 are rejected under 35 USC 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 49, 54, 55, 56, 58 and 65 have been amended to remove the term "capable of" and the term "sub-sequence".

Reconsideration and withdrawal of this rejection is requested.

No new matter is added by this amendment.

The Director of the U. S. Patent and Trademark Office is hereby authorized to charge any deficiency in any fees due with the filing of this paper to Deposit Account No. 08-3040.

Respectfully submitted,
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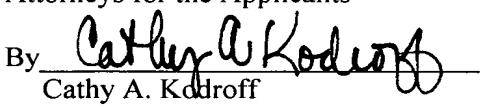
By 

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